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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,821	01/21/2004	Hui Chin	PP/1-22826/A/CGC 2139	4075

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EXAMINER	
VIJAYAKUMAR, KALLAMBELLA M	
ART UNIT	**PAPER NUMBER**
1751	

MAIL DATE	DELIVERY MODE
07/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/761,821	CHIN ET AL.	
	Examiner	Art Unit	
	Kallambella Vijayakumar	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04/30/2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 12-26* is/are pending in the application.

4a) Of the above claim(s) *25 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 12-24* is/are rejected.

7)☒ Claim(s) *9 and 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Claims 1-9 and 12-26 as amended are pending with the application. Claims 10-11 cancelled, Claims 1, 8, 12, 13, 25 and 26 amended. Claims 25-26 withdrawn from further consideration.
- Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. The allowability of claim-19 is withdrawn over the newly found reference of Nishizawa et al (US 6,551,671).

Claim Objections

Claims 9 and 12-14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The alkali sulfonic acids in these claims are not further limiting the imitation of straight or branched chain C_{10}-C_{18} alkylsulfonic acid salts in claim-1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 9, 12-13, 15-20 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwasa et al (US 2003/0072935).

Iwasa et al teaches a porous resin film composition containing a thermoplastic such as HDPE, PET, Polyamide <substrate>(Abstract, Para 0043), a hydrophilicizer of C8-C20 sulfoalkanecarboxylic acid ester salt such as a sodium salt of dodecanesulfonic acid (Para 0064-65,71), a hydrophilicizing aid such as lauryl diethanolamine (Para 0072) and hydrophilic resin such as polyether ester amide (Para 0081). The amount of hydrophilicizer was 0.01-50 parts by wt per 100 parts by weight of the thermoplastic (Para 0077). The antistatic property in the film will be inherent because prior art composition is identical to that by the applicants, and identical compositions possess identical properties. The wt% ratios of hydrophilicizer will meet the ratio limitations in claims 23-24. All the limitations of the instant claims are met.

The reference is anticipatory.

2. Claims 1-2, 9, 12-14 and 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al (US 5,654,096).

Yamada et al teach a core composition comprising a fiber forming polyethylene containing antistatic agent comprising a mixture of polyoxyethylene-polyether ester amide block copolymer (polyetheresteramide) and organic sulfonic acid salts such as sodium alkylsulfonate mixture having an average of C14. The polyoxylene polyether was added in the amount of 1-5 wt% and the organic sulfonate was added in the amount of 0.1-3 wt% (Abstract, Cl-8, Ln 62- Cl-9, Ln 62; Cl-10, Ln 55 – Cl-11, Ln 20). All the limitations of the instant claims are met.

The reference is anticipatory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-2, 4, 9, 12-14 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilti et al (US 5,965,206).

Hilti et al teach a composition comprising a thermoplastic fiber (A) <Substrate> and an antistatic composition (B). The preferred thermoplastic (A) included polyethylene, polyester and polyamides. The antistatic (B) comprised of components : (b1)- a fibrous/fiber forming polyamide, (b2). A block copolymer of polyetheresteramide <PEEA>, and (b-3) a low molecular weight organic salt of alkali metal having C1-

C4 acids such as methanesulfonic acid. (Abstract, Cl-5, Ln-11, 30, 38, 52-55; Cl-6, Ln 46-51 ; Cl-6, Ln 66-Cl 7,Ln 7 ; Cl-6, Ln 29-61, Cl-13, Ln 20-31).

The prior art fails to teach the addition of specific salts per the claims 1 and the ratios per claims 21-24.

It would be obvious to a person of ordinary skilled in the art to substitute the C1-C4 sulfonic acid salts of Hilti et al with long chain acid salts of alkali metals such as Na-capryl sulfonate (C10), Na-lauryl sulfonate or Na-dodecyl sulfonate (C12) as functional equivalent with reasonable expectation of success, because they are the homologs of the Hilti's salts, and homologs (compounds differing regularly by the successive addition of the same chemical group, e.g., by -CH2- groups) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. In re Wilder, 563 F.2d 457, 195 USPQ 426 (CCPA 1977).

With regard to claims 2 and 4, the prior art teaches a PEEA block copolymer of PEG with a molecular weight of 200-6000 and a polyamide segment having a molecular weight of 200-6000 daltons (Cl-7, Ln 1-7). With regard to claim 4, the examiner notes the product by process limitation in the claim, and asserts that the prior art PEEA will be same or indistinguishable to that produced by the instant claimed product by process composition.

With regard to claims 9, 12-13, the prior art teaches alkali metal salts.

With regard to claim-14, the surfactants are derived from natural oils/fatty acid sources and it would have been obvious to a person of ordinary skilled in the art to use such surfactants including the lauryl/dodecyl sulfonate derived from the natural sources as functional equivalents with reasonable expectation success.

With regard to claims 21-24, the prior art teaches the addition of PEEA and sulfonic acid salts in the antistatic composition, and the amounts of these components added to the composition of Hilti will lie close to the small amounts required in low end ranges of the instant claims, because compositions are drawn to antistatic materials, and a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773

(Fed. Cir. 1985) (Court held as proper a rejection of a claim directed to an alloy of "having 0.8% nickel, 0.3% molybdenum, up to 0.1% iron, balance titanium" as obvious over a reference disclosing alloys of 0.75% nickel, 0.25% molybdenum, balance titanium and 0.94% nickel, 0.31% molybdenum, balance titanium.).

2. Claims 3 and 6-8 are rejected under 35 U.S.C. 103(a) as being obvious over Hilti et al (US 5,965,206) in view of Ueda et al (EP 613919).

The disclosure on the antistatic composition by Hilti et al as set forth in rejection-1 under 35 USC 103(a) is herein incorporated.

The prior art does not explicitly mention the specific PEEA in the composition per the claims.

With regard to claim-3, the prior art further teaches the suitable polyether ester amides for the antistatic composition to be those taught by Uedo et al (Hilti: CI-7, Ln 8-9). The incorporated prior art teaches the antistatic resin compositions containing PEEA formed from polyamide oligomers with carboxyl chain ends with an average molecular weight of 200-5,000 daltons having segments of C4-C20 dicarboxylic acids such as adipic and terephthalic acids (Ueda: Abstract, Pg-3, Ln 30-40). The bisphenol compounds forming PEEA included oxyalkylated bisphenol compounds with an average molecular weight of 300-3,000 and having 32-60 oxyethylene units (Pg-3, Ln-41 to Pg-4, Ln-16).

With regard to claims 6-8, the examiner notes the product by process limitation in the claims, and asserts that the prior art PEEA made by condensing a polyamide oligomer with oxyalkylated bisphenol will be same or indistinguishable to that produced by the instant claimed product by process composition.

3. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilti et al (US 5,965,206) in view of Kamiyama et al (US 6,162,545).

The disclosure on the antistatic composition by Hilti et al as set forth in rejection-1 under 35 USC 103(a) is herein incorporated.

The prior art fails to teach the addition of a specific aliphatic polyetheresteramide (PEEA) per the claim, although it teaches a composition containing PEEA made from Polyamide oligomer and PEG.

In the analogous art, Kamiyama et teach antistatic compositions containing thermostatic polymers such as polyethylene, and aliphatic PEEA made from polyamide oligomer and PEG wherein PEEA (A) was derived from a polyamide having carboxyl groups at both ends and having a number average molecular weight of 500 to 5,000 derived from acids such as adipic and terephthalic acids (Abstract, Cl-3, Ln 41-47, Ln 57-63) and an alkylene oxide adduct of bisphenols having a number average molecular weight of 1,600 to 3,000 (Cl-3, Ln 64 to Cl-4, Ln 17); and a vinyl copolymer (B) and a thermoplastic resin (C) (Cl-6, Ln 42-43, 56-57; Cl-7, Ln 1-5), (d). alkali metal/alkaline-earth metal salts of organic acids (D) and (e). alkylsulfonate surfactant (E) in the amount of 0.1-5 parts by weight (Cl-7, Ln 35-40; Cl-8, Ln 1-15). The prior art further teaches compositions containing PEEA made by condensation of polyamide oligomer containing carboxyl groups at both ends having an acid value of 110 and a PEG with an average molecular weight of 1,500 (Cl-12, Ex-2; Cl-13, Tbl-3, Ex-5).

It would be obvious to a person of ordinary skilled in the art to substitute the PEEA in the antistatic composition of Hilti et al with specific aliphatic PEEA of Kamiyama et al as functional equivalent with reasonable expectation of success because Hilti teaches the addition of aliphatic PEEA in the antistatic composition, and the combined prior art teaching is suggestive of the claimed composition.

4. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being obvious over Hilti et al (US 5,965,206) in view of Nishizawa et al (US 6,551,671).

The disclosure on the antistatic composition by Hilti et al as set forth in rejection-1 under 35 USC 103(a) is herein incorporated.

The prior art does not teach the addition of specific alkyl diethanolamides in the antistatic composition.

In the analogous art, Nishizawa et al (US 6,551,671) et al teach antistatic layer compositions containing thermoplastic PE, LDPE and either PEEA or lauryl diethanolamide and sodium alkane sulfonate as low molecular weight migration type antistatic agent in the thermoplastic composition (Abstract, Cl-14, comparative Ex-2 and Table-1).

It would have been obvious to a person of ordinary skilled in the art to combine the prior art teachings to substitute the antistatic agents of Hilti et al with the migratory antistatic static agents of Nishizawa as functional equivalent with reasonable expectation of success because Hilti's species of C1-C4 sulfonic acids are encompassed by the genus of sodium alkyl sulfonate of Nisizawa, and the combined prior art teaching is suggestive of the claimed composition.

5. Claims 1-9, 12-14, and 20-24 are rejected under 35 U.S.C. 103(a) as being obvious over Kamiyama et al (US 6,162,545) in view of Kido et al (US 5,849,822).

Kamiyama et teach an agent for providing an electrostatic coating property and improving the water resistance of a coating film comprising 100 weight parts of an aromatic ring-containing Polyetheresteramide (A) derived from a polyamide having carboxyl groups at both ends and having a number average molecular weight of 500 to 5,000 derived from acids such as adipic and terephthalic acids (Abstract, Cl-3, Ln 41-47, Ln 57-63) and an alkylene oxide adduct of bisphenols having a number average molecular weight of 1,600 to 3,000 (Cl-3, Ln 64 to Cl-4, Ln 17); and 5 to 100 weight parts of a vinyl copolymer (B) and a thermoplastic resin (C) (Cl-6, Ln 42-43, 56-57). The thermoplastic resin (C) further contained 300 parts by weight or less of other thermoplastic such as polyester, polyethylene and polypropylene per 100 parts by weight of styrene-based resin (Cl-7, Ln 1-30). The composition further contained alkali metal/alkaline-earth metal salts of organic acids (D) and alkylsulfonate surfactant in the amount of 0.1-5 parts by weight (Cl-7, Ln 35-40; Cl-8, Ln 1-15).

The prior art fails to teach the addition of specific alkyl sulfonate or diethanolamide surfactant per the claims 1, 9 and 12-14.

In the analogous art, Kido et al teach antistatic compositions containing a thermoplastic such as Polyethylene terephtalate, polycarbonate or polyvinyl chloride, a polyether ester, and 0.5-10 parts by weight of a surfactant such as sodium dodecylsulfonate per 100 parts by weight of thermoplastic resin. (Cl-6, Ln-1-5, 35-51; Cl-12, Ln-23-Cl-13, Ln 18) and further teaches the addition of alkylsufonate ionic surfactants as antistatic agent (Cl-1, Ln 28-33) and forming the composition melt kneading the mixture and molding the composition (Cl-13, Ln 55-67).

It would be obvious to a person of ordinary skilled in the art to substitute the alkylsufonate surfactant in the composition of Kamiyama et al with sodium docecylbenzenesulfonate of Kido et al as functional equivalents with reasonable expectation of success, because teachings are in the analogous art of thermoplastics and combined prior art teaching is suggestive of the claimed composition.

With regard to claims 2 and 4-5, the prior art teaches compositions containing PEEA made by condensation of polyamide oligomer containing carboxyl groups at both ends having an acid value of 110 and a PEG with an average molecular weight of 1,500 (Cl-12, Ex-2; Cl-13, Tbl-3, Ex-5). The examiner notes the product by process limitation in the claims 4-5, and asserts that the prior art PEEA made by condensing a polyamide oligomer with PEG will be similar to that produced by the instant claimed product by process composition, because the prior art components are similar to that claimed by the applicants.

With regard to claims 3 and 6-8, the prior art teaches an aromatic PEEA and, the examiner notes the product by process limitation in the claims 6-8, and asserts that the prior art PEEA made by condensing a polyamide oligomer with oxyalkylated bisphenol will be same or indistinguishable to that produced by the instant claimed product by process composition.

With regard to claim-14, the surfactants are derived from natural oils/fatty acid sources and it would have been obvious to a person of ordinary skilled in the art to use such surfactants including the lauryl/dodecyl sulfonate derived from the natural sources as functional equivalents with reasonable expectation success.

Further, the ratio of component A and E in the composition meets the component ratios limitation in claims 21-24.

Response to Arguments

Applicant's arguments filed 04/30/2007 have been fully considered but they are not persuasive. With regard to the argument that the hydrophilicizer may be dodecane sulfonic acid salt or lauryl diethanolamine are some what generic and an additive of PEEA being optional is not persuasive because, these are either preferred or specific compounds added by the prior art in the composition (Res.

Pg 8, Ln –18 – Pg-9, Ln 8), and a reference disclosing optional inclusion of a particular component teaches compositions that both do and do not contain that component); < Celeritas Technologies Ltd. v. Rockwell International Corp., 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998).
With regard to the argument about the unexpected success over Hilti in substituting C-C4 with C10-C18 sulfonic acid salts (Spec. Pgs 29-32) (Res, Pg-10, Ln 1-4), the data is not commensurate with the scope of the claims.

For the reasons set forth above, the applicants fail to patentably distinguish their composition over the prior art.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kallambella Vijayakumar whose telephone number is 571-272-1324. The examiner can normally be reached on 8.30-6.00 Mon-Thu, 8.30-5.00 Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/
July 20, 2007.

/Mark Kopec/
Mark Kopec
Primary Examiner 1700